DOCUMENT RESUME

ED 098 347 88 CE 002 427

TITLE	Logging: Unit L#1 Grade 3. Project COULD: Career Orientation Utilizing Language Development.
INSTITUTION	Coos County Intermediate Education District, North Bend, Oreg.
SPONS AGENCY	Bureau of Elementary and Secondary Education (DHEW/OE), Washington, D.C.; Oregon State Board of Education, Salem.
PUB DATE	72
NOTE	52p.; For related documents, see CE 002 426-438
AVAILABLE FROM	Project COULD, Coos County Intermediate Education District, 2405 Colorado Street, North Bend, Oregon 97459 ($0.75)
EDRS PRICE	MF-$0.75 HC Not Available from EDRS. PLUS POSTAGE
DESCRIPTORS	Audiovisual Aids; Behavioral Objectives; Career Awareness; Career Education; *Career Planning; Community Resources; *Curriculum Guides; Elementary Education; *Forestry Occupations; Grade 3; *Language Development; Learning Activities; *Lumber Industry; Occupational Guidance; Primary Education; Resource Materials; Vocabulary; Vocabulary Development
IDENTIFIERS	Career Orientation Utilizing Language Development; Elementary Secondary Education Act Title III; ESEA Title III; Oregon; Project COULD

ABSTRACT

Project COULD (Career Orientation Utilizing Language Development) was developed as a means of building skills, knowledges, and attitudes on elementary children's previously acquired backgrounds. Children learn to speak the grammar and vocabulary characteristic of the language heard most frequently at home and in the immediate environment. Each unit of this instructional guide is designed to promote vocational awareness, exploration, and language development. The information in this unit on logging was prepared for use at the third grade level for an approximate period of four weeks. It is divided into eight sections: a summary, an outline of the entire set of units for the category of logging, Project COULD's goals, a list of the performance objectives, a vocabulary list, suggested learning activities, numerous resource materials (films, filmstrips, transparency sets, instruction sheets, pamphlets, books, records, slides, resource people, and a resource outline questionnaire), and background information on the Coos logging industry (job and process flow charts, job summaries, and suggested teacher reading). (Author/BP)

ED 098347
CE 002 427

CAREER ORIENTATION UTILIZING LANGUAGE DEVELOPMENT

BEST COPY AVAILABLE

PROJECT COULD

AN ESEA, TITLE III PROJECT SERVING COOS COUNTY, OREGON

COOS IED · 2405 COLORADO ST. · NORTH BEND, OREGON · 97459 · TELEPHONE 503+756-3138

DONALD E. DAY · PROJECT COORDINATOR

RECEIVED
APR 24 1973
NMSU
E.R.I.C.

L #1
LOGGING
GRADE 3

SUPERINTENDENT PUBLIC INSTRUCTION: DR. DALE PARNELL

COORDINATOR OF ESEA, TITLE III: ROBERT GREEN

SUPERINTENDENT COOS COUNTY IED: DR. THOMAS J. WALKER

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

"PERMISSION TO REPRODUCE THIS COPYRIGHTED MATERIAL BY MICROFICHE ONLY HAS BEEN GRANTED BY
Mike Murray
Project Could
TO ERIC AND ORGANIZATIONS OPERATING UNDER AGREEMENTS WITH THE NATIONAL INSTITUTE OF EDUCATION FURTHER REPRODUCTION OUTSIDE THE ERIC SYSTEM REQUIRES PERMISSION OF THE COPYRIGHT OWNER."

Copyright ©

COOS COUNTY INTERMEDIATE EDUCATION DISTRICT
AND OREGON STATE DEPARTMENT OF EDUCATION
1972

PROJECT COULD

CAREER ORIENTATION UTILIZING LANGUAGE DEVELOPMENT

A PACE PROJECT

Elementary and Secondary Education Act of 1965

Project COULD was developed as a means of building skills, knowledges, and attitudes upon elementary children's previously acquired backgrounds. Children learn to speak the grammar and vocabulary characteristic of the language heard most frequently at home and in the immediate environment.

A series of units of instruction were developed from the concepts and vocabulary of the industries indigenous to Coos County. The intention was to promote vocational awareness, exploration and language development for the students in grades 3 through 8.

The information in this unit was prepared for use at the third grade level for an approximate period of four weeks.

Materials prepared by Project COULD are available from the IMC of Coos County Intermediate Education District, 2405 Colorado Street, North Bend, Oregon 97459.

SCHEDULE OF UNITS

Grade Level	Lumbering
Grade 3 Unit L #1	Logging
Grade 4 Unit L #2	Logging Transportation
Grade 5 Unit L #3	Wood Processing
Grade 6 Unit L #4	Marketing Wood Products
Grade 7 Unit L #5	Lumbering Ecology
Grade 8 Unit L #6	Coos County Careers in Lumbering

SUMMARY

BEST COPY AVAILABLE

This instructional guide is divided into eight sections. Each section is tabulated for easier use and quick reference.

Summary:

The intentions and reasoning for this program have been stated. For effective results, it is suggested that the teacher becomes totally familiar with the curriculum guide before beginning.

Outline:

This section gives an overall view of all of the sequenced units. Details of the information to be covered in this unit are specifically outlined.

Goals:

Objectives:

Activities:

These three sections are sequentially integrated to clearly define what activities are suggested for a particular objective and a particular goal. Each goal is numbered to correlate directly with objectives, activities and resources.

Vocabulary:

All terminology found in the unit, including particular occupations, is included in this section. Each term is defined. These definitions are intended for teacher use only.

Resources:

Locally produced material, Coos County resource people, books, pamphlets and commercially prepared media are listed with reference made to activity correlation.

Background:

This section contains additional material for teacher use.

BEST COPY AVAILABLE

LOGGING
UNIT L # 1 OVERVIEW

The following outline represents the scope of the entire set of units (grades 3-8) for the category of LOGGING. Only the outline for this unit is in its completed form.

SUGGESTED TIME: FOUR WEEKS
- Logger Jobs: 3 days
- Logging Terminology and Interviews: 2 weeks
- Two Types of Logging Shows: 2 days
- Environmental Influences: 3 days

(UNIT L #1) LOGGING
- A. The many jobs of the logger
  1. Side Rod-Foreman
  2. Bull Bucker
  3. Faller
  4. Bucker
  5. Hook Tender
  6. Yarder Operator
  7. Chaser
  8. Shovel Operator
  9. Second Loader
  10. Chokerman
  11. Rigging Slinger
- B. Logging terminology relating to the jobs of the logger
- C. Two main types of logging shows
  1. High Lead Show
  2. Cat Show
- D. Environmental factors affecting logging
  1. Weather
  2. Geography
- E. Influence of logging on the economy

(UNIT L #2) LOGGING TRANSPORTATION
- A. Jobs in log transportation
- B. Terminology relating to jobs in logging transportation
- C. Two main methods of log transportation
- D. Environmental factors affecting transportation
- E. Influence of log transportation on the economy

(UNIT L #3) WOOD PROCESSING
- A. The many jobs of the millworker
- B. Terminology relating to the jobs of the millworker
- C. Three main types of milling processes
- D. Environmental factors
- E. Influences of the lumber processing industry on the economy

OUTLINE

(UNIT L #4) MARKETING WOOD PRODUCTS

A. Jobs in marketing
B. Marketing terminology
C. Wholesale and retail markets
D. Environmental factors
E. Economic relationships

(UNIT L #5) LUMBERING ECOLOGY

A. Workers involved in environmental quality control
B. Technical terminology relating to environmental quality control
C. The different methods used to control the quality of the environment in Coos County
D. The way in which the quality of the environment affects the economy of the County

(UNIT L #6) COOS COUNTY CAREERS IN LUMBERING

A. Opportunities for employment
B. Occupational interest inventory
C. Steps in applying for a job
D. The job interview
E. Employment vocabulary

BEST COPY AVAILABLE

GOALS

1. To make the students aware that logging in Coos County offers various opportunities for employment on a seasonal and full time basis.

2. To make the students aware that the logging industry has a unique set of terms that are used to facilitate communication.

3. To make the students aware of the type of woods' yarding operations used within various geographical areas in Coos County.

4. To make the students aware of the environmental factors that influence the logging industry of Coos County.

5. To make the students aware that logging plays an integral part of the total economy of Coos County.

The intention of Project COULD units is to utilize the language arts areas of reading, writing, listening, and speaking, as the vehicles to promote vocational awareness and exploration. It is not to dictate language arts curriculum, but to suggest that the vocational areas under consideration do have unique languages and concepts.

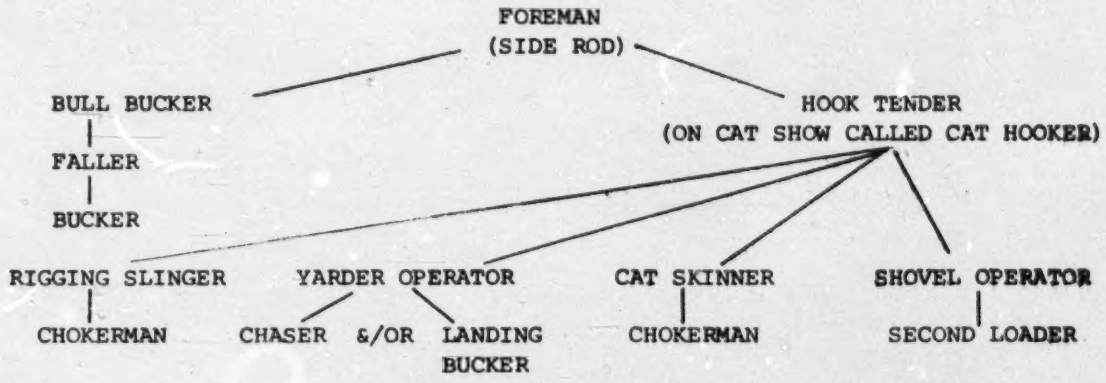
It is assumed that the language development aspect of the activities will be commensurate with the on-going language arts programs of the students participating in the various units prepared by COULD.

BEST COPY AVAILABLE

BEST COPY AVAILABLE

PERFORMANCE OBJECTIVES

1. Given a set of 5 x 8 cards containing the job titles listed below, each learner will orally choose 7 of the 14 titles and correctly name at least one specific responsibility of each job title within a time span imposed by the teacher. Each learner will then arrange the 14 cards on the given chart, showing with 100% accuracy the hierarchy of responsibility as shown below. This task will be completed within a time span imposed by the teacher.



2. Given a choice of media covering selected job titles, each learner will choose one and use a tape recorder to tape a 3 to 5 minute job description using correctly a minimum of 10 words from the unit's vocabulary listing.

3. After viewing the COULD prepared 16MM sound films, The High Lead Show and The Cat Show, each learner will participate at least once in a discussion led by the teacher in which each of the following questions is answered to the teacher's satisfaction:

   What was the land like around the high lead show?
   What was it like around the cat show?
   Why couldn't the loggers use cats in the area being yarded by the high lead yarder?
   Why didn't the loggers use a high lead yarder in the area being yarded by the cats?

4. Each learner will list on paper within a time span imposed by the teacher, at least 4 ways in which the environment affects the occupations of the logger, as judged by the teacher.

5. Given the resource material compiled throughout the unit and thirty minutes, each learner will write a story entitled, "The Day the Woods Disappeared," including at least three of the following points:

Loggers would lose their jobs.
Erosion would occur.
All people producing and selling lumber would lose their jobs.
Local businesses indirectly connected with lumbering would slow or close.
People without jobs would probably move to places where jobs were
available causing the population of the county to decrease.
Mills would close and move to other places.

THE DEFINITIONS PROVIDED ARE INTENDED FOR TEACHER USE. IT IS SUGGESTED THAT THE STUDENTS FORMULATE THEIR OWN DEFINITIONS THROUGH THE ACTIVITIES OF THIS UNIT.

VOCABULARY AND SPELLING

In this unit, 33 vocabulary words and 12 key occupations are discussed. These words and occupations can and should be used as a part of the spelling program in the classroom. You as the teacher, are the best judge as to how this should be done in your classroom. No matter how you approach the matter remember that it is just as important to know how to spell the word as it is to know how to use it correctly in speaking.

MASTER VOCABULARY LIST

A permanent listing of all current vocabulary words should be available to the students at all times during the study of Logging. Having this list of words and their definitions readily available to the children on charts, the overhead projector, the blackboard or a vocabulary notebook will provide the children with an immediate reference should the need arise. A professional in-depth type of definition will not be nearly as valuable to the children as one that they have written, discussed and put on the master list themselves. If a definition is to be useful, it must be easily understood by the children.

VOCABULARY

BACK CUT	Final cut made in the tree before it falls. Made on the opposite side of the tree from the undercut* and parallel to the ground.
BLOCK	A pulley attached to a stump by cables. The main cable from the high lead yarder* is threaded through these.
BUCK	To cut a fallen tree into logs of designated length.
BRANDING HAMMER	A 4 lb. sledge hammer with the company brand on its head. Used by the second loader to brand the logs to show ownership during transportation.
BUTT RIGGING	Attached to the main cables of the yarder. It is made up of several pieces of steel and attaches the chokers* to the main yarder lines.
CAT	Bulldozer.
CHAIN SAW	Power driven saw with cutting teeth attached to the chain. Used to cut trees.
CHASING	The act of unhooking the choker* from the log at the landing.
CHOKER	Composed of a cable, choker bell, and nubbin.* Used to wrap around the log so that it can be yarded.
CHOKER BELL	A sliding bell-shaped piece of steel attached to the choker* cable. The nubbin* easily slips inside the bell and is locked in place.
CLEAR CUT	All trees in an area are cut down.
COLD DECK	Pile of cut logs.
CORK BOOTS	Also called calked boots. Worn by loggers because the small nails sticking out of the soles provide good traction when they are working on or around timber.
ENVIRONMENT	Everything in the surroundings in which we live and work.
EROSION	Wearing away of the soil by wind, rain, etc.

* Defined within the vocabulary section

GRAPEL	Usually a two (sometimes three) pronged apparatus at the end of the shovel* cable resembling a thumb and a forefinger type lever. Used to grasp or grapel logs.
GUY LINE	Cables attached to blocks and the spar pole* which hold the pole in place.
HARD HAT	A hat worn by the loggers to protect them from head injuries.
HAY WIRE	The small cable taken out from the yarder by the hook tender* and threaded through the pullies (blocks). This small, lighter cable is used to thread the heavier, stronger main lines from the yarder through the blocks and back to the yarder.
HIGH LEADING	Made up of a system of cables attached to a spar pole.* All machinery is mounted on a self propelled frame. The main line and haul back cables enable logs to be lifted out of low places and from high hills without dragging or sliding the log over the ground.
LANDING	Flat area in which the yarder* is operating or to which logs are yarded and loaded or cold decked.
LAY	The direction in which the tree is planned to fall.
LAYOUT	The area reached by the yarder's cables. When all logs are yarded in this path, a new layout must be made by the hook tender.
NUBBIN	The round steel ball at the end of the choker* cable.
SET	(As in set a choker*) The act of fastening the choker* around the log.
SHOVEL	A machine that resembles a steam shovel with a grapel* in place of the shovel. Used to load logs onto trucks.
SHOW	Area around a landing.* The name possibly came from the fact that there is a lot of activity around or on the landing.
SPAR POLE	The tower like structure that holds the cables off the ground enabling a high lead* operation.

*Defined within the vocabulary section

TURNS	The logs selected by the rigging slinger* to be yarded.
UNDERCUT	(Used in this unit to signify both the undercut and the topcut.) The first cut made by the faller* in falling the tree. A wedge shaped cut made in the tree so that, when removed and the back cut made, the tree will fall in that direction.
WEDGE	Steel triangle used to keep the chain saw from binding. They are pounded into the back cut by the bucker.*
YARDING	Moving the tree from where it was cut and/or bucked* to the landing.

*Defined within the vocabulary section

KEY OCCUPATIONS

BUCKER	Helps faller* to cut down tree. Bucks tree into logs.
BULL BUCKER	Master faller and bucker. Boss of several cutting teams. He plans the work so that the fallers* are not in each other's way.
CAT SKINNER	Operates the cat.*
CHASER	Unhooks the chokers* as each turn reaches the landing.
CHOKER SETTER	Fastens the chokers* (sets the choker) around the turns. Starting job of almost any logger.
FALLER	Plans the lay* and falls the trees. Usually measures the tree and tells the bucker* where to buck the trees into logs.
FOREMAN OR SIDE ROD	Boss of all operations on that side. Responsible for keeping all of the men working. In case of a breakdown, he may reassign the men.
HOOK TENDER	Called the Cat* Hooker on a Cat Show. Foreman for that entire show. Makes the layouts and makes sure that everyone is doing their job. Helps out where needed. On a Cat Show he chooses the turns and gives hand signals to the cat skinner* telling him what to do. He also plans where the cat roads are to be built.
RIGGING SLINGER	Immediate supervisor of the chokermen, chooses and plans the turns, runs the radio controlled whistle and helps chokermen when needed.
SECOND LOADER	Stands on top or near the log truck and gives signals to the driver so that the logs may be loaded without having to move the shovel*. Brands the logs as they are loaded or just before.
SHOVEL OPERATOR	Runs the shovel* or loader. Is responsible for maintenance and service checks. Helps the mechanic do any repairs. Lowers the spar pole*, moves the yarder to a new landing* and raises the pole again.

*Defined within the vocabulary section

RESOURCE PEOPLE LISTED IN THE RESOURCE SECTION OF THIS UNIT SHOULD BE CONTACTED AT LEAST ONE WEEK IN ADVANCE OF THEIR VISIT. THEY SHOULD HAVE AVAILABLE AN OUTLINE OF THE MATERIAL YOU WISH COVERED AND A LIST OF ANY EQUIPMENT YOU WOULD LIKE THEM TO BRING. (IF ONE OF THE CHILDREN'S FATHERS COULD BE USED AS A RESOURCE PERSON, THIS MAY BE BENEFICIAL TO THAT STUDENT AND THE CLASS AS A WHOLE.)

THE TEACHER WILL NEED TO BRING THE FOLLOWING EQUIPMENT FOR USE IN THE UNIT:

2 LARGE CARDBOARD BOXES

ENOUGH DIRT TO FILL THE BOXES TO A DEPTH OF ABOUT 4-5 INCHES

BEST COPY AVAILABLE

Week	Monday	Tuesday	Wednesday	Thursday	Friday
1st	1-A 1-B 1-C 1-D 1-E	1-F 1-G (Test for obj. 1)	2-A 1-F	2-B 2-C	2-D
2nd	2-E 2-F	2-F 2-G	2-H 2-I 2-J	2-K	2-L (Test for obj. 2)
3rd	2-L (On-going test for obj.2)	2-L (On-going test for obj.2)	2-L (On-going test for obj. 2) 2-M	3-A 3-B 3-C	3-D 3-E 3-F 3-G (Test for obj. 3) 3-H
4th	4-A 4-B 4-C 4-D 4-E	4-E 4-F 4-G 4-H 5-A 5-B 5-C	4-I (Test for obj. 4) 5-D	5-E 5-F 5-G	5-H (Test for obj. 5)

The numbers on the calendar refer to activities on the following pages, which parallel objectives and goals. These are <u>suggested</u> activities in a <u>suggested</u> order which the instructor is free to modify and/or improvise.

ACTIVITIES

BEST COPY AVAILABLE

1-A OPENER: Ask the children if any of their parents or friends are loggers. If so, have them tell what they know about that person's job. If few parents or friends are involved in logging:

SUPPLEMENTAL ACTIVITY-OPENER: Begin with a discussion of what the children know about logging. Ask the children to tell what are the jobs of the logger. List these on the overhead projector or blackboard and discuss each. (Try to elicit names for each occupation offered that the child might have heard his parents use.) If necessary, lead the class to conclude that there is more to the logger's job than just cutting trees by use of questions such as the following:

How do loggers know which trees to cut down?
How does the logger go about cutting down a tree?
What do the loggers do to the tree after they cut it down?
How do they get the tree into the truck?
(Remember, there are no correct answers to these questions. They are just to ascertain how much the children already know about logging and logging occupations.)

1-B Introduce the 16MM films by telling the class they are going to view two films about all the jobs of the logger. Ask them to be aware of the different job titles that they have not listed in activity 1-A and the names for those occupations that they may have already listed. Also ask the children to be aware of when the most logging is done, in the summer or winter, and why.

1-C View COULD prepared 16MM film, LOGGER AT WORK

(Commercially Prepared Material)
16MM film, NEW PAUL BUNYAN

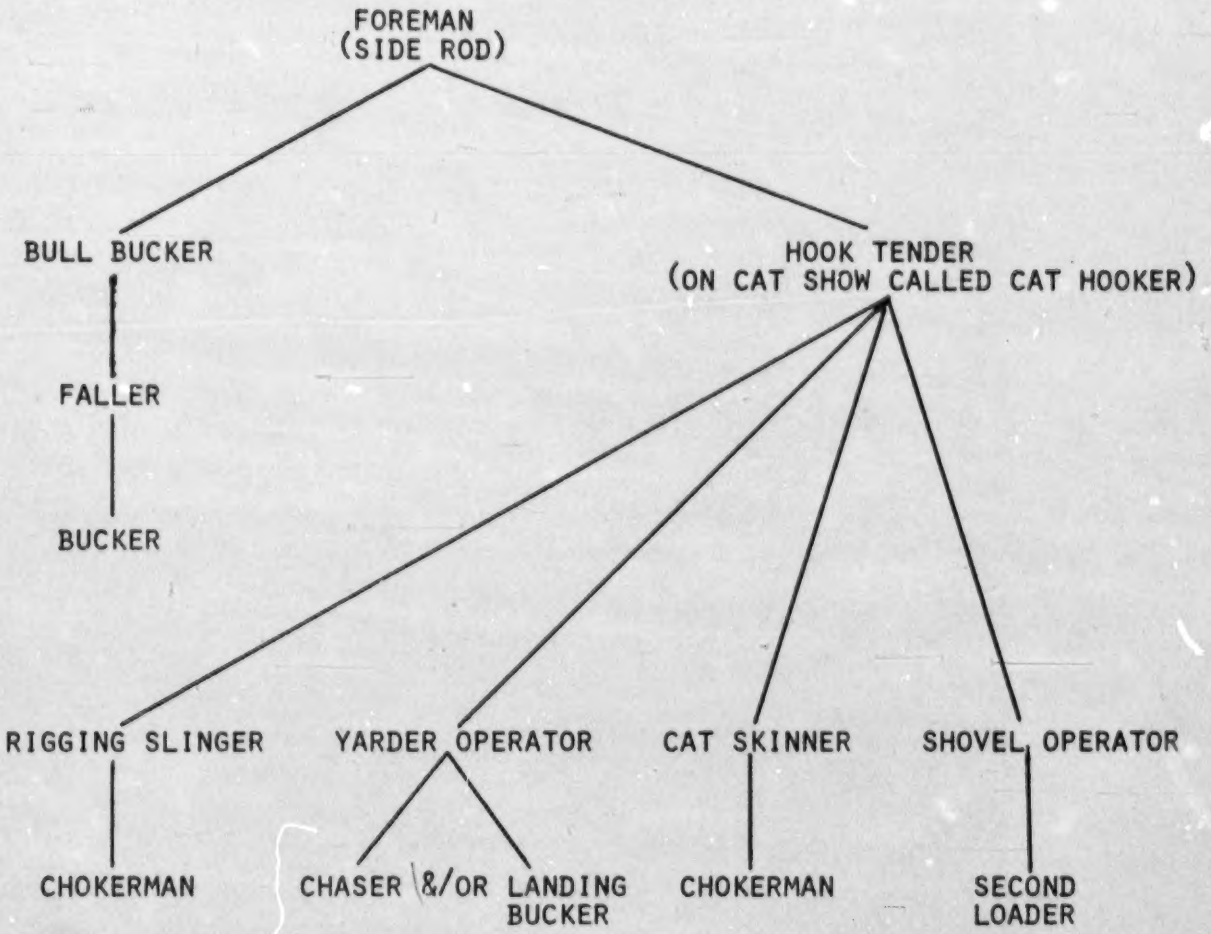
1-D 16MM film LOGGER AT WORK Follow-up: Discuss each occupation in the films supplementing the list from activity 1-A with names of occupations. (Emphasis should be placed on the occupations and their names in sequence as they appear in the films.) Discuss in which season most logging is done and why.

1-E As a class or in groups of students, using sets of previously prepared 5 x 8 cards with the occupation name listed on each, have the students arrange them sequentially as to where that job falls in the tree harvesting process. Have them present their descriptions to the class.

ALTERNATE ACTIVITY: Use the COULD prepared transparencies entitled, JOBS OF THE LOGGER, for a similar class activity. Discuss the job as shown in each picture and its sequence in the tree harvesting process. Label each one with a job title.

BEST COPY AVAILABLE

WOODS OPERATION: JOB FLOW CHART



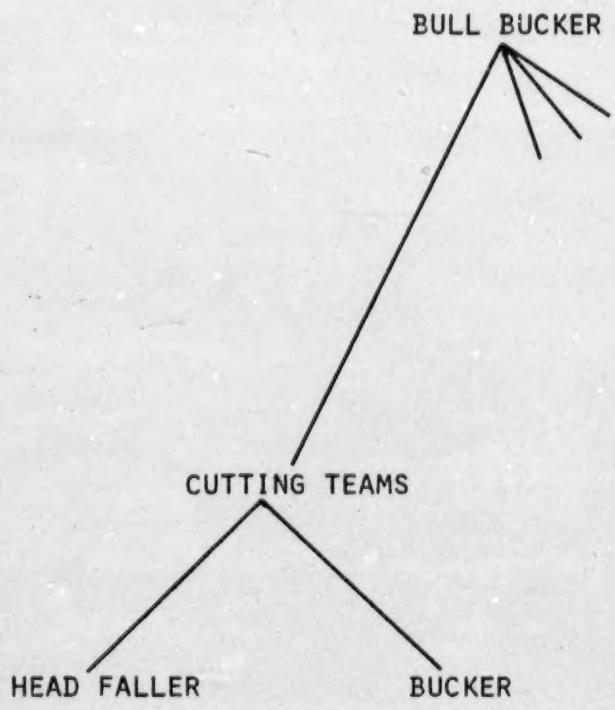
BEST COPY AVAILABLE

WOODS OPERATION: JOB FLOW CHART

CAT SHOW

BEST COPY AVAILABLE

JOB FLOW CHART
THE CUTTING TEAM



BEST COPY AVAILABLE

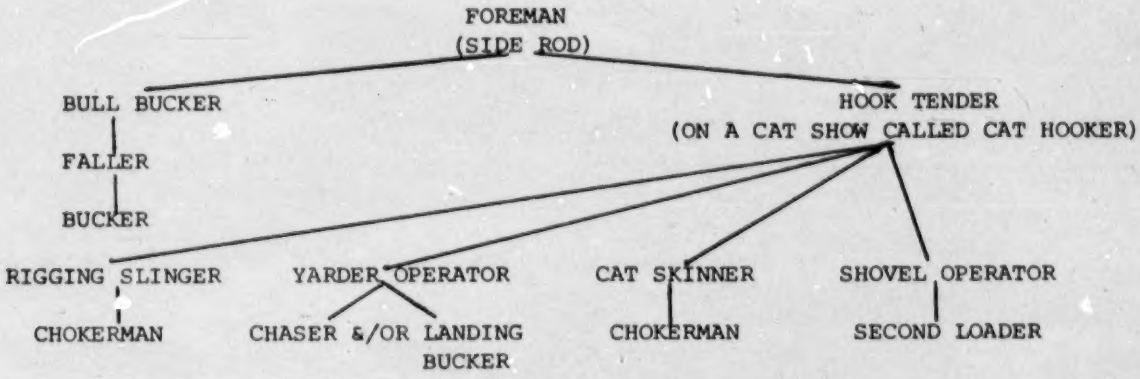
(Note: When the class has finished their presentations, you may become aware of the need to review the film. This would be a good place to clear up any misunderstandings that have arisen. When the class has the proper sequence of jobs, the cards or prints can be mounted on a bulletin board to make a flow chart for future reference.)

1-F ENRICHMENT ACTIVITY: If any of the children know loggers, they might want to talk to them asking what their job title is and what they do, then make a report to the class using the cards, study prints or transparencies to label the job and where it comes in the sequence of occupations.

1-G EVALUATION ACTIVITY: (Test for Goal and Objective 1)

MATERIALS NEEDED: Set of 14 5 x 8 cards containing the job titles shown below.
Large chart (approximately 3'x 4') made of tagboard or butcher paper containing the lines shown below and spaces in which to place the cards.

Given a set of 5 x 8 cards containing the job titles listed below, each learner will orally choose 7 of 14 titles and correctly name at least one specific responsibility of each job title within a time span imposed by the teacher. Each learner will then arrange the hierarchy of responsibility as shown below. This task will be completed within a time span imposed by the teacher.



2-A Read aloud to the class selected passages from books listed in the Resource section of this unit or any appropriate library book which gives good examples of logging terminology presently used in the industry:

TO BE A LOGGER by Lois Lenski, pp. 91-106
LUMBERCAMP by Glen Rounds, pp. 55-63
WHISTLE PUNK by Bill and Rosalie Brown, pp. 21-29
LET'S GO LOGGING by George Herman, pp. 9-13
GIFTS FROM THE FOREST by Gertrude Wall, pp. 16-30

BEST COPY AVAILABLE

Discuss these terms by using questions such as the following:

What does this word mean?
From what you know about logging and the way the word is used in the sentence, can you figure out the meaning of the word?
Does this word have other meanings? Discuss.
(The teacher will have others more appropriate to the reading selection and the class.)

Help the children to conclude that they need to know more about the terms used by loggers.

ALTERNATE ACTIVITY: Let the children listen to selected songs from the album WHERE THERE WALKS A LOGGER, THERE WALKS A MAN by Buzz Martin. (The song WHISTLE PUNK PETE uses the most logging terms in one song.) List the terms used on the overhead projector or blackboard after listening to the song.

Ask the children to define the words.

Help the children to conclude that they need to know more about the terms used by loggers.

Suggest to the class that a good way to learn about the terms loggers use would be to invite some of them to visit the class and talk about their jobs and some of the equipment and terms that they use on their job.

Decide as a class a logical sequence in which to have these resource people visit the class. It would seem logical to use the flow chart made by the class in activity 1-E as a guideline in planning these visitations.

As resource people are contacted, it would be a good idea to contact the local news media to inform them of the resource person's visit and demonstration time, date and location if applicable. Many times they will send a photographer to record the visit for the general public. Don't forget any local TV stations in the area and do not be afraid to call! These people are always happy to obtain newsworthy articles and pictures. Be sure to clear this with your resource speaker as they may be bothered by photographers and newsmen.

THE FOLLOWING ACTIVITIES ARE DESIGNED TO BE USED AS EITHER READINESS IN PREPARATION FOR, OR AS FOLLOW-UP TO THE VISIT BY THE RESOURCE PERSON:

2-B Media for use as readiness or follow-up with the resource person's talk on "Cutters: Buckers and Fallers."

Sound Filmstrip:	Cutters at Work
16MM Sound Film:	Loggers Who Fall Trees
Transparency Masters:	Logging Operation: The Men, Their Jobs and Their Tools

List the following vocabulary words on the overhead projector, blackboard or make up a ditto sheet:

faller	clear cut
back cut	hard hat
bucker	lay
bull bucker	undercut
chain saw	wedge

2-C View the selected media with the purpose in mind of defining the vocabulary words.

2-D FOLLOW-UP: Discuss each term as defined by the children. Enter the final definition agreed upon by the class on the master vocabulary list.

2-E Media for use as readiness or follow-up with resource person's talk on the High Lead Yarder:

16MM Sound Film:	The High Lead Show (selected portions only)
16MM Sound Film:	The Landing Team
Transparency Masters:	Logging Operation: The Men, Their Jobs and Their Tools

List the following vocabulary words on the overhead projector, blackboard or make up a ditto sheet:

block
butt rigging
choker
guy line
high lead
hook tender
landing
layout
spar pole
yarder operator
yarding

2-F View the selected media for the purpose of defining the vocabulary.

2-G FOLLOW-UP: Discuss each term as defined by the children. Enter the final definition agreed upon by the class on the master vocabulary list.

2-H Media for use as readiness or follow-up with the resource person's talk on Choker Setters, Chasers and Loaders:

16MM Sound Film:	The High Lead Show (selected portions only)
Sound Filmstrip:	Chokers, Chasers and Loaders
16MM Sound Film:	The Landing Team
Transparency Masters:	Logging Operation: The Men, Their Jobs and Their Tools

List the following vocabulary words on the overhead projector, blackboard or make up a ditto sheet:

brand	nubbin
chasing	second loader
choker bell	shovel
"cork" boots	set (a choke)
grapel	

2-I View the selected media for the purpose of defining the vocabulary.

2-J FOLLOW-UP: Discuss each term as defined by the children. Enter the final definition agreed upon by the class to the master vocabulary list.

2-K ENRICHMENT ACTIVITY: GAME--COLLEGE BOWL

Teacher Preparation---Make two different colored sets of all vocabulary words to be defined on 5 x 8 cards, one word to a card.

Procedure----------Divide the class into two teams. Hand out the word cards, one color for each team, one card at a time to each student until all cards are gone. Give a definition orally to the class. If the student has the card with the correct term on it, he may answer the question. If he thinks he has the right card he may also try.

Rules----------To be able to answer, the student with the card must stand up and say "Call!" In this way the teacher sees and/or hears the first person to stand on each team. If the answer given by the first person to stand and say "Call" is correct, his team gets the point. If he misses the question, the first person who "called" on the other team gets a chance to answer. If he is correct, his team gets the point. If both players give the incorrect answer, the definition is given later on in the game.

2-L EVALUATION ACTIVITY: (Test for Goal and Objective 2)

MATERIALS NEEDED: Media listed in Activities 2-B, 2-E and 2-H; tape recorder(s).

Given a choice of media covering selected job titles, each learner will choose one and use a tape recorder to tape a 3 to 5 minute job description using correctly a minimum of 10 words from the unit's vocabulary listing. (For media with a sound track, turn the volume off while viewing. In this way, the child becomes the narrator. Presentations may then be made to the class as time allows.)

2-M ENRICHMENT ACTIVITY: GAME--PROMOTIONS

Teacher Preparation---Use the flow chart from Activity 1-E to visually represent the job progressions.

Objectives----------The object of this game is to see who, during the period of the game, can be promoted to Side Rod (Foreman).

Procedure----------One student stands next to the desk of another student. The teacher gives a job or vocabulary definition aloud. The first student to answer the question correctly gets the promotion. He then moves on to stand by another person and to attempt another question. If the person who is standing does not answer the question correctly, he takes the seat of the person he is standing next to. If neither can give the correct term, the definition is kept and re-used by the teacher at a later time.

Rules----------Each child starts as a choker setter. Promotions are made for correct terms to match the definitions given by the teacher. Where two jobs are about the same, let the child choose his promotion (i.e., yarder operator and shovel operator).

Each child must remember his job until his next turn. (It might be wise to have each child write his job on a piece of paper as he is promoted.)

ACTIVITIES

3-A List the following vocabulary words and jobs on the board, overhead projector or make a ditto of them:

spar pole	set
landing	show
buck	turns
choker	yarding
choker bell	block
nubbin	hard hat
butt rigging	yarder operator
guy line	choker setter
hay wire	chaser
layout	hook tender
erosion	rigging slinger

Ask the students a sequence of questions such as the following:

What is a high lead yarder?
How does it work?
What is the man called who runs this machine?
Why do loggers use a high lead yarder? (This question may or may not stump the class. In either case though, it should cause some thought as to the existence of alternative yarding methods.)

Introduce the film as a review of jobs and vocabulary of the high lead yarding operation.

Ask the children to be aware of the jobs listed on the flow chart and be ready to discuss these using the correct logging terms.

3-B View the 16MM Sound Film, The High Lead Show.

3-C FOLLOW-UP: Ask the children why this operation is called a SHOW. Through class discussion, briefly review each job title in the sequence presented in the film. Ask the class again why loggers use a high lead yarder.

3-D As an introduction to the next film, ask the children if they can think of a different method of yarding-moving the logs from where they fell to the landing. Tell the class that they are going to see a different type of yarding method.

Ask your students to define the following terms while viewing the film:

cat skinner	choker setter
cat hooker	erosion
chaser	hard hat
choker	landing set
choker bell	nubbin

3-E View the 16MM Sound Film, THE CAT SHOW.

3-F FOLLOW-UP: Lead the class in a discussion of the terms they defined and add these definitions to the master list. Then have the children compare and contrast the two shows as to occupations involved. A comparison of a flow chart of occupations in both shows might be helpful to the children to visualize the differences and similarities.

3-G EVALUATION ACTIVITY: (Test for Goal and Objective 3)

MATERIALS NEEDED: None. (The 16MM Sound Films, THE HIGH LEAD SHOW and THE CAT SHOW have previously been viewed in Activities 3-B and 3-E.)

After viewing the COULD prepared 16MM Sound Films, THE HIGH LEAD SHOW and THE CAT SHOW, each learner will participate at least once in a discussion led by the teacher in which each of the following questions is answered to the teacher's satisfaction:

What was the land like around the high lead show?
What was it like around the cat show?
Why couldn't the loggers use cats in the area being yarded by the high lead yarder?
Why didn't the loggers use a high lead yarder in the area being yarded by the cats?

3-H ENRICHMENT ACTIVITY: As a class project, the children might enjoy constructing a high lead yarder and role playing the jobs of a high lead show.

A simple high lead yarder and leader can be built with inexpensive materials by following the directions included in the resource section of this unit, or by using your imagination and a set of Tinker Toys or an Erector Set.

The landing can be built of paper mache and wire as a part of a landscape scene, or a classroom desk will serve just as well. If there is a small ditch or gulley near the school, this can also be used.

Log trucks and bulldozers (cats) can be brought by the children from their toy collections at home. If none are available, the Tinker Toy or Erector Set kits may again be employed.

Once the construction has been finished, each child will take turns role playing the various jobs of the logger.

ACTIVITIES

4-A Begin the class discussion by asking the children what types of things make up the weather. List on the overhead projector or the blackboard. Divide the class into small workable groups. Have each group discuss how the weather (listed previously) might affect each of the jobs of the logger. (The children might use the flow chart of jobs as a reference.) Let each group report their conclusions to the class. List their ideas opposite each type of weather according to occupation.

4-B When the children run out of ideas, suggest that they view the 16MM Sound Film, WEATHER AND THE LOGGER. The vocabulary words covered in the film and the pamphlet in the following alternate activity are: cork boots, hard hat, erosion, and environment. Instruct the children to list the ways in which weather affects the logger's job.

4-C View the 16MM Sound Film, WEATHER AND THE LOGGER.

4-D FOLLOW-UP: From the children's notes, supplement the list from Activity 4-A as a class discussion.

ALTERNATE ACTIVITY: Hand out the pamphlet, WEATHER AND THE LOGGER. Have the children read orally or silently from the reading material. If an oral reading activity is chosen, discuss, as the children read, ways in which the weather affects the logger. Add any points omitted in Activity 4-A to the list. If the children read silently, instruct them to list the ways in which weather affects the logger's jobs that were not listed in Activity 4-A. When they have finished, let the class supplement the list from their reading notes.

4-E Lead discussion in way of review, why the loggers might choose to use a high lead yarder instead of a cat show to yard logs in a specific area.

Teacher Preparation: Bring two fairly large cardboard boxes to class. Cut the side down to about four inches and line the bottom and sides with aluminum foil, masking the seams with tape. Fill the prepared boxes with soil forming a hill in the center of the box. This should be big enough for the following activities. For the log, use a branch of fairly large diameter and for the choker, some string. (If a yarder was constructed in Activity 3-H, this may be used.) Also needed will be one sprinkling can like those used to water houseplants. A jar with nail holes punched in the lid will also work.

Discuss in way of review, why the loggers might choose to use a high lead yarder instead of a cat show to yard logs in a specific area. Then ask the class to define erosion which might in some way also help determine which kind of show would be used at a certain site.

BEST COPY AVAILABLE

Demonstration: Drag the log up the hill several times. Ask the class what is happening to the soil. Help them conclude that it is being dug up or displaced.

On another side of the hill, lift the log as a high lead yarder might, with only a portion of the log dragging. Have the children compare the soil displacement in each case. With the sprinkling can, pour water on the entire landscape as to cause erosion. Ask the children which method of logging causes the least erosion.

Use a toy cat or a piece of wood to bulldoze roads in the soil hillside of the other landscape. In one section make many roads going up and down the face of the hillside. On the other side make only a few roads parallel to the contour of the hill. Suggest that a careless Cat Skinner may have worked on the first side, while an experienced man worked on the other. Ask the children what will happen in each section when "rain" falls. Then, sprinkle water over the areas to cause erosion. Help the children conclude that fewer carefully placed roads will cause less erosion.

Ask the class why the logger should be concerned about saving the soil. Lead them to conclude that trees need soil in which to grow.

4-F Discuss the meaning of environment (see Vocabulary section). Ask what things make up a logger's environment (include areas discussed in Activities 4-A, D, E, as well as the logger's home life and off-the-job activities). Ask what they know about how old time loggers lived. (Remind them of Paul Bunyan stories they have heard.)

Prepare to view the commercially prepared 16MM film entitled, THE LUMBERMAN: OUR CHANGING WAY OF LIFE, by telling the children that today they are going to view a film about some of the changes that have taken place in a logger's environment through the years. Tell them to look for ways that the logger's environment has changed, and look for reasons why the environment changed. (The teacher should preview the film and select only the portion that pertains to a logger's home environment.)

NOTE: Activities 4-F, G, and H correlate with Activities 5-A, B, and C.

4-G View the 16MM film - selected portion only - of THE LUMBERMAN: OUR CHANGING WAY OF LIFE.

4-H FOLLOW-UP: Use questions such as the following to help the children conclude that the logger's environment today includes a home life similar to any other worker who may live in town or out of town, and that modern transportation and logging technology have allowed him to do this.

How was the logger's way of living in the film different from old time loggers?
What made it possible for the logger to live at home instead of in a lumber camp? (rapid transportation)
What other changes in the logger's environment can you think of, that were not mentioned in the film, that might take place in the future?

4-I EVALUATION ACTIVITY: (Test for Objective and Goal 4)

Materials needed: None

Each learner will list on paper within a time span imposed by the teacher, at least 4 ways in which the environment affects the occupations of the logger, as judged by the teacher.

ACTIVITIES

5-A Prepare to view THE LUMBERMAN: OUR CHANGING WAY OF LIFE by telling the children that today they are going to view a film about a ghost town. Instruct them to list reasons why the town became a ghost town. (The teacher should preview the film and use only that portion pertaining to old time logging practices and their effect on the town.)

NOTE: Activities 5-A, B, and C correlate with Activities 4-F,G, and H.

5-B View the film - selected portions only - of THE LUMBERMAN: OUR CHANGING WAY OF LIFE.

5-C FOLLOW-UP: Ask the children to volunteer reasons (from the notes they took) as to why the town turned into a ghost town. List these on the overhead projector or the chalkboard. Use questions such as the following to help the children conclude that jobs earn the worker money with which to buy things. When there are no jobs, there is no money and people cannot buy or sell goods. When this happens, stores close and people move.

Why did the logging operation shut down?
What happened to the loggers when this happened?
Why did the stores go out of business?
Where do you think all of the people went? Why?

5-D Use the COULD prepared transparency and overlays entitled: HOW JOBS DISAPPEAR to discuss what would happen in Coos County if all loggers were not allowed to cut trees from now on. As each overlay is discussed, stress that some jobs will be eliminated completely, while others will only become smaller because of decreased population and demand for the products. Use the following questions to discuss each occupation overlay:

If there are no logs, what will happen to the people working in this job? Why?
Will their jobs no longer be needed? Or, will there just be less demand for people who do this work?
What new jobs might these people look for?

NOTE: Overlays appear in this order:

TITLE:	How Jobs Disappear
OVERLAYS:	Logger
	Log Truck Drivers
	Tugboat Workers
	Mill Workers
	Dock Workers
	Chip Truck Drivers
	Gas Station Workers
	Clothing Store Workers
	Food Store Workers

BEST COPY AVAILABLE

5-E FOLLOW UP: Through discussion lead the children to the conclusion that all businesses and jobs depend upon each other in varying degrees.

5-F ENRICHMENT ACTIVITY: Tell the class that today they are going to use their imagination. Suppose that someone has just invented a machine called a Superyarder. This Superyarder is one single machine which can set on a hilltop, and with long arms, fall trees, buck trees, pick up the trees automatically and move them to the landing, and set the trees on trucks to go to the mill. The Superyarder only needs one man to operate the controls, but needs six mechanics to keep it oiled and in running condition. The Superyarder is capable of cutting the trees and getting them on the trucks twice as fast as men could do it in the usual way.

What effect would a Superyarder have on the men who worked on the cutting, yarding and landing teams?
What might these men do who lost their jobs to the Superyarder? (Become mechanics, or even go to work for the factory that builds the Superyarder. Bring in the idea that they probably will need to get additional training to fill another job or may need to move to another area. Also, due to the increased production of the Superyarder, some of the men may move into another phase of the production process such as truck driver, mill worker, etc.)
How would you feel if you lost your job because a machine was able to do your job faster and better than you?

5-G ENRICHMENT ACTIVITY: Some students may enjoy making a drawing or model of their idea of what the Superyarder looks like. These could be displayed around the room.

5-H EVALUATION ACTIVITY: (Test for Goal and Objective 5)

Materials Needed: Each learner should have access to all material he has compiled throughout the unit. The following list of questions should be written on the chalkboard, or overhead projector:

What would happen to all jobs of the loggers?
What would happen to the soil?
How would this happening affect people working in mills and lumber companies?
What would this strange event do to the barber?
The gas station operator? The baker? etc.
What would happen to the size of the town? Why?

Given the resource material compiled throughout the unit and 30 minutes, each learner will write a story entitled "The Day the Woods Disappeared," including at least three of the following points:

Loggers would lose their jobs.
Erosion would occur.
All people producing and selling lumber would lose their jobs.

Local businesses indirectly connected with lumbering would slow or close.
People without jobs would probably move to places where jobs were available causing the population of the county to decrease.
Mills would close and move to other places.

(Tell the students that today they are going to write a story. As a class, discuss what would happen "The Day the Woods Disappeared." Let several students offer ideas, and then tell them that, as they write, include answers to at least three of the questions on the chalkboard or overhead projector.)

COULD PREPARED MATERIALS

	Activity No.
16MM SOUND FILMS	
The Logger at Work	1-C
Loggers Who Fall Trees	2-C, 2-L
The High Lead Show	2-F, 2-I, 3-B, 2-L
Weather and the Logger	4-C
The Cat Show	3-E
SOUND FILMSTRIPS	
Cutters at Work	2-C, 2-L
Chokers, Chasers and Loaders	2-I, 2-L
TRANSPARENCY SETS AND MASTERS	
Jobs of the Logger	1-E
Logging Operation: The Men, Their Jobs and Their Tools	2-C, 2-F, 2-I, 2-L
How Jobs Disappear	5-D
INSTRUCTION SHEETS	
Building the High Lead Yarder	3-H
PRINTED MATERIALS	
Pamphlet: Weather and the Logger	4-D

RESOURCES

COMMERCIALLY PREPARED MATERIALS

Activity No.

2 X 2 (35MM) SLIDES WITH AUDIO TAPE

Contact Mr. Gary Brown, Charleston,School District #9

16MM SOUND FILMS

New Paul Bunyan (Weyerhaeuser Co.) OSU Film Lib.	1-C
The Landing Team (Rarig)	2-F, 2-I, 2-L
The Lumberman: Our Changing Way of Life IED F1272	5-B, 4-G

BOOKS

To Be a Logger by Lois Lenski	2-A
Lumber Camp by Glen Rounds	2-A
Whistle Punk by Bill and Rosalie Brown	2-A
Let's Go Logging by George Herman	2-A
Gifts From the Forest by Gertrude Wall	2-A

RECORDS

Where There Walks a Logger, There Walks a Man by Buzz Martin RIPCORD RECORDS, Vancouver, Washington	2-A

BEST COPY AVAILABLE

RESOURCE PEOPLE

The following people have consented to act as resource people. They should be contacted at least one week in advance of their visit to give them time to prepare for their presentation and gather materials needed*

Name	Occupation	Employer	Phone No.
Mr. Ken Lewis	Controller	Al Pierce Lumber Co.	267-4113
Mr. David Sant	Public Relations	Weyerhaeuser Co.	756-5121 Ext. 255
Mr. John Mingus	Public Relations	Georgia-Pacific Corp.	269-1171 Ext. 43
Mr. Joe Perkins	Personnel Manager	Coos Head Lumber Co.	267-2193

BEST COPY AVAILABLE

* Some parents of children in your classroom may be able to serve you as resource speakers. If this is the case, they should be contacted.

RESOURCE OUTLINE: CUTTERS: FALLERS AND BUCKERS

DATE OF VISIT: _____

TIME OF VISIT: _____

SCHOOL AND ADDRESS: _____

SCHOOL PHONE: _____

TEACHER: _____

TEACHER'S HOME PHONE: _____

BEST COPY AVAILABLE

A. If at all possible, the resource person should bring as much of the equipment used on the job as possible. The children will learn more about the equipment used and the job if they can see the tools. A small section of log could be set up at the school and "felled" making a valuable demonstration that would enable the children to see the step by step process.

B. Points to discuss

1. Why you became a logger
2. Entry requirements for your job; physical and educational
3. What you like most about your job
4. What you least like about your job
5. Working conditions
6. Pay
7. Chances for promotion

C. Vocabulary words to cover with the children

1. Faller
2. Bucker
3. Bull Bucker
4. Chain Saw
5. Hard Hat
6. Wedge
7. Lay
8. Undercut
9. Back cut
10. Clear Cutting

RESOURCE OUTLINE: HIGH LEAD YARDER

DATE OF VISIT: _____

TIME OF VISIT: _____

SCHOOL AND ADDRESS: _____

SCHOOL PHONE: _____

TEACHER: _____

TEACHER'S HOME PHONE: _____

BEST COPY AVAILABLE

A. If at all possible, the resource person should bring as much of the equipment used on the job as possible. The children will learn more about the equipment used and the job if they can see the tools. Actually rigging a block for the children would be a valuable demonstration enabling the students to see at least part of the job of the hook tender.

B. Points to discuss

1. Why you became a logger
2. Entry requirements for your job; physical and educational
3. What you like most about your job
4. What you least like about your job
5. Working conditions
6. Pay
7. Chances for promotion

C. Vocabulary words to cover with the children

1. High Lead Yarder
2. High Leading
3. Yarding
4. Block
5. Guy Lines
6. Spar Pole
7. Landing
8. Layout
9. Choker
10. Butt Rigging

RESOURCE OUTLINE: CHOKER SETTERS, CHASERS AND LOADERS

DATE OF VISIT: _____

TIME OF VISIT: _____

SCHOOL AND ADDRESS: _____

SCHOOL PHONE: _____

TEACHER: _____

BEST COPY AVAILABLE

TEACHER'S HOME PHONE: _____

A. If at all possible, the resource person should bring as much of the equipment used on the job as possible. The children will learn more about the equipment used and the job if they can see the tools. Demonstrating the proper method of choker setting and possibly letting the children try it would help the students gain a deeper understanding of at least part of the job.

B. Points to discuss

1. Why you became a logger
2. Entry requirements for your job; physical and educational
3. What you like most about your job
4. What you like least about your job
5. Working conditions
6. Pay
7. Chances for promotion

C. Vocabulary words to cover with the children

1. Shovel
2. Grapel
3. Chasing
4. Brand
5. Second Loader
6. Choker bell
7. Nubbin
8. Set (a choker)
9. Cork boots

BEST COPY AVAILABLE

The logging industry today employs over 1-1/2 million people in the mills and woods operation. In Coos County alone, over 4,500 people are employed directly in the woods and mill operations and the money earned by these people goes into the economy of the county.

The term logging is a broad one when used in everyday conversation. However, in this unit it will refer only to the men who are directly responsible for cutting, bucking, yarding and loading the tree at the woods operation. Limiting the meaning in this fashion was necessary in order to more clearly differentiate occupational groups within the lumber industry. (More specifically, mill workers are usually not loggers and possess an entirely different set of skills from the faller or chokerman. Therefore, they are discussed in the fifth grade unit on processing.)

With this definition of logging in mind, it might be easy to think of logging as containing only limited possibilities for employment. But as this unit develops, it should become clear that there are at least 11 key occupations, each building upon knowledge or "woods wiseness" learned as a beginning logger or chokerman.

Without these men doing their jobs, the port of Coos Bay alone would not have been able to export over 4-1/2 million board feet of lumber and logs or 120,000 tons of chips as it did in 1968. Without these men, the trees could never be transported, processed and their lumber marketed, thus eliminating numerous occupations and a major portion of the county's economy.

Listed below are some books and pamphlets available from your local library which the teacher might wish to skim before beginning the unit and a summary of each key occupation. Preceding the summaries is a short guide to help the teacher understand at what point in the tree harvesting process each job enters.

TEACHER READING

GIFTS FROM THE FOREST by Gertrude Wallace Wall
WOODS WORDS: A completed dictionary of Loggers Terms by Walter F. McCulloch
THE EFFECTS OF TECHNOLOGICAL CHANGE ON EMPLOYMENT IN THE LUMBER INDUSTRY by State of Oregon Department of Employment (1968)

LOGGING JOBS ENTER THE TREE HARVESTING PROCESS

1. The CUTTERS fall the tree.
2. The tree is bucked into the logs by the BUCKER.
3. From one to three months later, the yarder is brought to the cut area by the YARDER OPERATOR who is helped in setting up the spar pole by the CHOKERMEN and RIGGING SLINGER. The whole operation is supervised by the HOOK TENDER. (The hook tender was told where to set up the yarder by the FOREMAN or Side Rod.)
4. The HOOK TENDER plans the layout, sets the blocks, and threads the hay wire.
5. The YARDER OPERATOR by this time has tightened the guy lines and can now send the chokers out from the landing by the high lead (a system of overhead cables) to the CHOKERMEN.

BEST COPY AVAILABLE

6. The RIGGING SLINGER chooses the turns and supervises the choker setting which is done by the CHOKERMEN.
7. When the CHOKERMEN are clear of the area, the RIGGING SLINGER activates the radio controlled whistle signaling the YARDER OPERATOR to pull the logs to the landing.
8. When the logs arrive at the landing, the CHASER unfastens the choker and may buck the log if necessary. If he doesn't have the experience handling a chain saw, the bucking will be done by a LANDING BUCKER. In some cases, these are one in the same man.
9. At this time, the LOADER OPERATOR or SHOVEL OPERATOR will use the machine to grapel the log and lift it onto the log truck.
10. The SECOND LOADER tells the truck driver to move the truck forward or back so that the logs will be placed properly on the bed of the truck and brands the log with the company brand.

On a cat show, the job of the RIGGING SLINGER is handled by the HOOK TENDER who is now called a CAT HOOKER. It is his job to choose the turns, tell the CAT SKINNER where to make the roads and where to move the cat.

The following job descriptions were taken from a pamphlet published by the State of Oregon Department of Employment entitled, The Effects of Technological Change on Employment in the Lumber Industry (1968). Though the job descriptions are too detailed for classroom use, they are excellent background for the teacher. A copy of this pamphlet may be obtained by writing:

State of Oregon Department of Employment
Program and Methods Unit
402 Labor and Industries Bldg.
Salem, Oregon 97301

BEST COPY AVAILABLE

BUCKER

OCCUPATIONAL DESCRIPTION

Saws felled trees into specified log lengths, working alone or as member of two-man team. Places limbs or poles under felled tree to avoid splitting underside and to prevent rolling when cut is completed. Saws tree into specified lengths, using power chain saw. Drives wedges into cut behind saw, using mall to relieve binding saw. May chop or saw limbs from felled trees. May mark felled tree into log lengths.

EQUIPMENT

Chain saw, calk boots, mall and wedges, hard hat, rain gear.

MINIMUM QUALIFICATIONS

Education: No specific educational requirements, although employers prefer at least grammar school education.

Training: At least one year bucking experience in Douglas Fir regions is required to be fully qualified.

PHYSICAL DEMANDS AND WORKING CONDITIONS

Work is performed outside and under noisy conditions.
Worker is subject to hazards of falling limbs, throwback of trees, and rolling logs.
Must have above average strength and endurance to handle chain saw and move about in rough terrain.

WORKER CHARACTERISTICS

Aptitudes: Average aptitudes are required in motor coordination, manual dexterity, and eye-hand-foot coordination.

Temperaments: Must be able to work under conditions of stress due to risks of rolling logs, falling limbs, and throwback of trees.

BEST COPY AVAILABLE

BULL BUCK

Timber Foreman; Bull Bucker; Head Bucker

OCCUPATIONAL DESCRIPTION

Supervises and coordinates activities of workers engaged in felling trees, trimming limbs, and bucking felled trees into logged lengths: Locates posted boundary markers to determine area to be logged. Instructs FALLERS and BUCKERS as to trees to be felled or saved, direction and sequence of fall, stump height, and log length. Observes individual worker activity to insure performance according to established standards of quality, and individual production.

EQUIPMENT

Calk boots, rain gear, hard hat

MINIMUM QUALIFICATIONS

Education: No specific educational requirements, although employers prefer at least grammar school education.

Training: Four years falling and bucking experience in Douglas fir, hemlock, and cedar timber.

PHYSICAL DEMANDS AND WORKING CONDITIONS

Work is performed outside.
Worker is subject to hazards of falling limbs and trees, throwback of trees, etc.
Must be able to walk and climb in very rough terrain.

WORKER CHARACTERISTICS

Aptitudes: Worker should have at least average aptitudes in general intelligence, numerical and spatial perception.

Temperaments: Worker must be able to direct, control and plan an entire activity. Must be able to perform satisfactory under conditions of stress. He must be able to evaluate information against measurable and verifiable criteria.

CHASER

Landing Man

OCCUPATIONAL DESCRIPTION

Unhooks chokers from logs brought to landing by high lead yarder or tractor. Signals YARDER ENGINEER or TRACTOR OPERATOR where to drop logs

BEST COPY AVAILABLE

on landing for reloading onto logging trucks. Pulls end of choker to open noose. Signals operator to pull chokers free of logs, to slack and hold lines while equipment is attached, or to return rigging to choker-setting area. Attaches equipment, such as chokers, cables, blocks, and fire equipment to outbound rigging as indicated by signals from WHISTLE PUNK. May mark ends of logs with branding hammer. May cut limbs from logs, using chain saw. May notch anchor stumps and secure guy-lines for spar tree or steel tower.

EQUIPMENT

Branding hammer, chain saw, marlin spike and other cable splicing tools, calk boots, hard hat, and rain gear.

MINIMUM QUALIFICATIONS

Education: None required.

Training: Could be hired into this job and trained in one or two weeks for adequate job perform ice. This job is usually filled by a CHOKERMAN as a promotion and only requires a few days to orient the worker.

PHYSICAL DEMAND AND WORKING CONDITIONS

This worker performs his duties outside and under noisy conditions. He is subject to hazards of rolling logs and whiplashing choker cables. The work is considered very heavy as he lifts and carries chokers, blocks coils of cable, and other equipment weighing fifty to one hundred pounds and exerts up to fifty pounds of push-pull thrust to release swaged ball from choker cable bell. Worker is on his feet throughout the working day, walking over, upon, and around logs and rough terrain. Good depth perception is essential to judge distance and speed of logs and rigging approaching the landing to avoid possible accident injury.

WORKER CHARACTERISTICS

Aptitudes: Worker needs average aptitudes in motor coordination, manual dexterity, and eye-hand-foot coordination.

Temperaments: Performs repetitive and short cycle tasks according to set procedures and specific instructions. Must be able to perform duties under conditions of stress due to the hazards involved.

CHOKERMAN

Chokersetter

OCCUPATIONAL DESCRIPTION

Fastens chokers around logs preparatory to yarding them from falling and bucking area to storage or loading landing: (1) High Lead Logging: Drags choker to log designated by RIGGING SLINGER. Passes end of choker around and under log and hooks swaged ball on end of cable into cup of sliding bell on cable to form a noose. Tightens noose and walks away from the log which is signal to RIGGING SLINGER that choker is set.

Clears earth and brush fastening choker. (2) Tractor Logging: Carries or drags detached choker cable to log, forms noose around log, and stretches free end of cable toward tractor runway. Pulls cable from tractor winch to free end of choker cable and attaches both eye-splices in cables together with clevis. May notch anchor stumps and secure guy-lines for spar tree or steel tower. May assist in relocating high lead tail blocks and cables.

EQUIPMENT

Calk boots, hard hat, and rain gear.

A choker is a length of cable that is wrapped around a log to form a noose when the end of the cable is attached to a sliding fastener called a bell. When pull is exerted on the cable, the noose tightens and "chokes" (cinches up) the log. Chokers come in a variety of types such as the eye-splice and hook-bell or swaged-ball and cup-bell, with the latter being the most commonly used in the woods.

MINIMUM QUALIFICATIONS

Education: None required.

Training: None required. Chokersetting is usually the entry job in the logging industry. The duties are few and simple and can be learned with the minimum of instruction.

PHYSICAL DEMANDS AND WORKING CONDITIONS

Work is performed outside under hazards of rolling logs and whiplashing cables. This job is considered very heavy work as the worker is on his feet throughout the day, lifting and carrying chokers weighing from 50-100 pounds, pulling on the mainline or winch cables with 50-100 pounds of thrust to gain slack, and climbing up and down hills, over rough terrain and logs, and through brush. Worker stoops, kneels, crouches and crawls to pass end of choker under log and remove brush and dirt from under log at point where chokers are attached.

WORKER CHARACTERISTICS

Aptitudes: Worker needs at least average aptitudes in spatial perception, motor coordination, manual dexterity, and eye-hand-foot coordination.

Temperaments: The work is repetitive and short cycle and is accomplished according to set procedures. The chokersetter receives his instructions from the RIGGING SLINGER on which log to set his choker.

FALLER

Timber Faller; Tree Faller; Faller-Bucker

OCCUPATIONAL DESCRIPTION

Fells trees, using power chain saw, working alone or as member of a two man crew: Clears brush from around base of tree and escape route with ax. Selects best direction to fell tree to minimize danger of breaks, damage to other trees, and to facilitate yarding operations. Saws cuts in bole (trunk) of tree, using power chain saw to make under-cut and fix direction of fall. Removes wood from between cuts, using a "pulaski" (sharp mattock-like tool) to leave clean, straight under-cut and prevent diversion in direction of fall. Saws opposite side to make back-cut and drives wedges into cut with mall to tip of tree and prevent binding of saw. May fell snags and saplings in path of tree to prevent throwback. May chop or saw limbs from felled trees. May saw tree into log lengths.

EQUIPMENT

Chain saw, calk boots, mall, pulaski, wedges, rain gear and hard hat.

MINIMUM QUALIFICATIONS

Education: No specific educational requirements, although employers generally prefer at least grammar school education.

Training: At least 2-3 years of falling timber are required to be fully qualified in Douglas fir regions.

PHYSICAL DEMANDS AND WORKING CONDITIONS

Work is performed outside and under noisy conditions. Workers are subject to hazards of falling limbs, throwback of trees, rolling logs, etc.

Worker must have above average strength and endurance to handle power-saw and move about rough terrain. He must have far visual acuity and depth perception to judge tree characteristics and length of fall.

WORKER CHARACTERISTICS

Aptitudes: Average aptitudes are required in spatial perception, motor coordination, manual dexterity, and eye-hand-foot coordination.

Temperaments: Must be able to work under conditions of stress due to hazards involved.

HOOK TENDER

Hooker

OCCUPATIONAL DESCRIPTION

Supervises workers engaged in rigging and operating high-lead logging system; Visually studies site to be logged yarded, confers with LOGGING SUPERINTENDENT, to determine system to be used, and selects spar trees, anchor stumps, landing area, and placement of yarding and loading machines. Inspects blocks, cables and other rigging to insure they are greased and in safe working condition. Directs rigging of spar tree or portable steel tower, notching of anchor stumps, and placement of guy-lines and running tackle by rigging crew.

Signals YARDER ENGINEER to start equipment operation and conducts load tests for cable weakness and undue equipment strain. Maintains constant surveillance over yarding and leading operations to insure that safe and efficient working standards are met. Dissects dismantling and moving of equipment to new site. Instructs crewmen on safe working practices. May supervise and assist in making repairs to defective equipment.

EQUIPMENT

Calk boots, rain gear, hard hat.

MINIMUM QUALIFICATIONS

Education: Employers generally prefer high school graduates.

Training: Must have at least five years all around experience in high-leading logging operations.

PHYSICAL DEMANDS AND WORKING CONDITIONS

Work is performed outside. Work is subject to the same hazards as those of yarding, loading, and rigging crews. Must be in above average condition to move about in rough terrain for extended periods of time.

WORKER CHARACTERISTICS

Aptitudes: Must have above average spatial perception to visualize proposed systems in operation, to lay out same, and anticipate stresses of systems. Must have at least average aptitudes in general intelligence, numerical, form perception, motor coordination, and manual dexterity.

Temperaments: Must be able to work in situations involving the direction, control, and planning of an entire activity. Must be able to perform under conditions of stress as he must act quickly and decisively during situations of danger resulting from the many hazards of a logging operation. He must be able to make decisions involving measurable or verifiable criteria.

LOADER ENGINEER

Shovel-Loader Operator; Grapple-Loader; Heel-Boom Operator

OCCUPATIONAL DESCRIPTION

Operates heel-boom loading machine to lift logs from landing and load them onto log trucks: Pulls throttle and pushes button to start diesel engine. Pulls or pushes control levers to rotate loader on its chassis, raise or lower tongs or grapple, open or close grapple, pull in or swing grapple out, and move loading machine. Pulls lever to advance throttle which accelerates all movements of loader and depresses brake pedals to slow and stop them. Raises or lowers tongs and swings boom according to hand signals from HEAD or SECOND LOADER, when loader is equipped with tongs. Sorts and loads logs according to specie, grade, and size, when machine is equipped with grapples or power tongs. Signals TRUCK DRIVER to back up or go forward, using whistle to facilitate balancing load.

EQUIPMENT

Loading machines are usually adaptions of the power shovel or mobile crane. The construction-type boom is replaced by: (1) a heel-boom that utilizes either hand-set tongs or mechanical grapples, or (2) a dipperstick boom that uses hand-set tongs or hydraulically or pneumatically activated tongs. The grapple is hinged and levered so that with multiple cables, the operator can open the grapple, drop or cast it over the log, and close the jaws around the log. It is then lifted and "heeled" against the boom to enable loading. The pneumatic or hydraulic tongs are secured directly to the dipperstick boom with the boom and tongs both lowered directly to the log being loaded. The operator merely pushes a lever to close the tongs over the log. Power-tong and hand-tong loading use the same "heeling" principle as the grapple system.

MINIMUM QUALIFICATIONS

Education: No specific educational requirements.

Training: Operators of grapple or power-tong loaders should have 2-4 years of general woods experience. Two months of operating the loader should provide the skill to perform adequately. Operators of loaders utilizing hand-set tongs do not need the woods experience, as sorting is done by HEAD LOADER. Approximately one week of tong loading experience should provide the necessary proficiency.

PHYSICAL DEMANDS AND WORKING CONDITIONS

The work is performed inside an enclosed cab under noisy conditions. Work is sedentary in nature. The worker needs good far vision to read hand signals from a distance and depth perception to control load accurately.

WORKER CHARACTERISTICS

Aptitudes: Workers should have average aptitudes in general intelligence, spatial perception, motor coordination, manual dexterity, and eye-hand-foot coordination.

Temperaments: While the work is repetitive and short cycle and performed according to set procedures, the operator of grapple loaders does evaluate and sort logs, such as peelers, saw-logs, and pulp wood according to specie, grade, and size.

RIGGING SLINGER

Head Slinger

OCCUPATIONAL DESCRIPTION

Leads activities of workers engaged in setting chokers and installing or relocating ground rigging used in high-lead or sky-line logging system: Confers with HOOK TENDER of tail and anchor stumps, log yarding sequence, number and size of choker cables, and size and type, and layout of rigging. Directs crew to notch anchor stumps, attaches straps, hook up blocks and guy-lines, and string yarding cables through blocks to complete ground rigging of yarding system. Signals WHISTLE PUNK verbally (hoots) to relay operating instructions to YARDER ENGINEER when chokers are set and crew is free of danger, when logs become snagged during yarding process, and danger to workers is evident. Directs crew in removal of ground rigging when area has been logged. May perform duties of CHOKERMAN. May take charge of yarding crew during absence of HOOK TENDER. Usually works with crew during rigging activities.

EQUIPMENT

Calk boots, hand tools, rain gear, hard hat, and cable splicing tools.

MINIMUM QUALIFICATIONS

Education: No specific educational requirements, although employers generally prefer at least grammar school education.

Training: At least two years high-level logging experience with emphasis on rigging and choker setting activities.

PHYSICAL DEMANDS AND WORKING CONDITIONS

Work is performed outside and subject to hazards to rolling logs and live rigging.

Must have above average strength and endurance to handle heavy rigging and move about rough terrain for extended periods of time.

WORKER CHARACTERISTICS

Aptitudes: Worker should have at least average aptitudes in general intelligence, spatial perception, motor coordination, manual dexterity, and eye-hand-foot coordination.

Temperaments: Must be able to perform satisfactorily under conditions of stress due to the hazards of the operation and his responsibility for the safe working conditions of his crew.

Must be able to adapt to changes in terrain, timber, and weather conditions when devising or recommending most efficient rigging set-up.

SECOND LOADER

Top Loader

OCCUPATIONAL DESCRIPTION

Directs placement of logs onto log trucks at landing: Attaches crane hook to log trailer and signals LOADER ENGINEER to hoist trailer from truck chassis. Couples trailer to truck and signals LOG TRUCK DRIVER to move truck forward or backward according to length of log being loaded and directs placement of log onto truck bunkers to attain balanced load. Releases tongs from log to prepare for additional loading. May chop limbs from logs. May stamp owner's mark into end of loaded logs, using branding hammer. May place cable and chains around loaded logs and secure them with binders.

EQUIPMENT

Calk boots, branding hammer, ax, rain gear, and hard hat.

MINIMUM QUALIFICATIONS

Education: No specific educational requirements, although employers prefer at least grammar school education.

Training: Six months to a year training, plus three to six months general logging background.

PHYSICAL DEMANDS AND WORKING CONDITIONS

Work is performed outside, under noisy conditions. Worker is subject to hazardous conditions. He may be struck by logs being loaded onto truck and be tripped by shifting of logs on truck while he is standing on them.

Must have above average physical endurance to climb about logs on truck, climb on and off truck cab, and handle tongs.

BEST COPY AVAILABLE

WORKER CHARACTERISTICS

Aptitudes: Must possess average aptitudes in spatial perception, motor coordination, eye-hand-foot coordination, and manual dexterity.

Temperaments: Must be able to work under conditions of stress due to hazards involved. Must be able to work according to set procedures of repetitive and short cycle operations.

YARDER ENGINEER

Donkey Engineer; Yarder Operator

OCCUPATIONAL DESCRIPTION

Operates yarding machine, at logging site, to yard logs from falling and bucking area to truck loading area. Pulls or pushes levers, in response to signals from WHISTLE PUNK, to engage or disengage diesel powered winches that reel in or release mainline, haul-back line, straw line, or guinea line to haul in logs to landing; to send choker cables from landing to chokersetting crew; and to rethread blocks for new show (set, or road). Pushes or pulls hand throttle to accelerate or decelerate speed of winch drums. Depresses brake pedals to slow, or stop, pay-out action of winch drums and keeps mainline taut to raise front of logs and prevent their digging into ground or hanging up on stumps during haul-in and to prevent choker cables from catching on brush and stumps during haul-back. Turns levers at console of portable spar assembly to lower or raise hydraulically operated jackpads which raise or lower spar from or to its cradle; to extend or retract telescoping spar; and to pay out, tighten, or reel in guy-lines.

EQUIPMENT

Yarder: A diesel powered machine with winches to pull logs from falling and bucking area to storage or loading area. Winches pay out and reel in a cable which crosses logging area from top of a steel tower or spar tree to a tail block (pulley) at the edge of the clearing. Choker cables, attached to the running cable and to logs, haul logs to landing.

MINIMUM QUALIFICATIONS

Education: No specific educational requirements, although employers prefer at least grammar school education.

Training: About 2-4 year experience (on the ground) as a CHOKERMAN, CHASER, and RIGGING SLINGER and about two months experience in operating under fairly close supervision of an experienced operator.

BEST COPY AVAILABLE

PHYSICAL DEMANDS AND WORKING CONDITIONS

Work is performed inside an enclosed cab during inclement weather. Worker is exposed to considerable noise as diesel engine is usually located behind the cab. He is also subjected to considerable vibration as load pulls against top of tower and guy-lines.

Work is sedentary in nature. The operator should have good depth perception to place load so as to prevent possible injury to the CHASER or HEAD LOADER who are located in the immediate area.

WORKER CHARACTERISTICS

Aptitudes: Worker should have at least average aptitudes in general intelligence, spatial perception, motor coordination, manual dexterity, and eye-hand-foot coordination.

Temperaments: Performs repetitive and short cycle operations according to set procedures, and receives instructions by signals from WHISTLE PUNK and CHASER.